

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/016053

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ G01N21/84, G01B11/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ G01N21/84-21/958

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

| | | | |
|---------------------------|-----------|----------------------------|-----------|
| Jitsuyo Shinan Koho | 1922-1996 | Toroku Jitsuyo Shinan Koho | 1994-2005 |
| Kokai Jitsuyo Shinan Koho | 1971-2005 | Jitsuyo Shinan Toroku Koho | 1996-2005 |

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| Y | JP 2002-243650 A (Cataler Corp.), 28 August, 2002 (28.08.02), Full text; all drawings (Family: none) | 1-4, 6-11, 13-14 |
| Y | JP 5-264459 A (Sumitomo Metal Mining Co., Ltd.), 12 October, 1993 (12.10.93), Full text; all drawings (Family: none) | 1-4, 6-11, 13-14 |
| Y | JP 9-229662 A (Hitachi, Ltd.), 05 September, 1997 (05.09.97), Par. Nos. [0030] to [0032]; Fig. 11 (Family: none) | 1-4, 6-11, 13-14 |

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search

06 January, 2005 (06.01.05)

Date of mailing of the international search report

25 January, 2005 (25.01.05)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| Y | JP 2002-14051 A (Ibiden Co., Ltd.), 18 January, 2002 (18.01.02), Par. Nos. [0025] to [0046]; Fig. 2 (Family: none) | 3, 10 |
| Y | JP 54-139784 A (NGK Insulators, Ltd.), 30 October, 1979 (30.10.79), Full text; all drawings & DE 2915899 A & GB 2021274 A & US 4319840 A | 2, 9 |
| P, X | JP 2004-37248 A (Sumitomo Metal Mining Co., Ltd.), 05 February, 2004 (05.02.04), Full text; all drawings (Family: none) | 1, 4-5, 8, 11-12 |